

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

#### **NOTICE OF ACCEPTANCE (NOA)**

Sika Sarnafil, A Division of Sika Corp. 100 Dan Road Canton, MA 02021

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

#### **DESCRIPTION:** Sika Sarnafil PVC Single Ply Roofing over Recover Deck

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

Stephen

This NOA revises NOA No. 14-0624.15 and consists of pages 1 through 68. The submitted documentation was reviewed by Alex Tigera.

MIAMI-DADE COUNTY
APPROVED

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### **ROOFING SYSTEM APPROVAL**

Category:RoofingSub-Category:Single PlyMaterial:PVCDeck Type:Recover

**Maximum Design Pressure:** See Specific Assemblies

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

		111222	
<u>Product</u>	<b>Dimensions</b>	Test Specification	Product <u>Description</u>
G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
Textured G410	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane.
G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
Textured G410 Felt	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	48, 60, 72 and 80 mils	ASTM D4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
S327	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 (10 ft)	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane.
S327 Felt	48, 60, 72 and 80 mils	ASTM D4434	Polyester reinforced PVC roofing membrane with a non-woven felt backing.
Sikaplan Fastened	45 mils or 60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sikaplan Fastened Feltback	45 mils or 60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sikaplan Adhered	60 mils	ASTM D4434	White polyester reinforced PVC roofing membrane.
Sarnatape	Various	Proprietary	Air flow barrier tape
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol 2121	5 gallons	Proprietary	Water based bonding adhesive.
Sarnacol 2163		Proprietary	Insulation adhesive.
Sarnacol AD Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane or insulation adhesive.
Sarnacol AD Board Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<b>TABLE</b>	1

Product	Dimensions	Test Specification	Product Description
Sikaplan Water Based Membrane Adhesive	5 gallons	Proprietary	Water-based dispersion membrane adhesive.
Sarnacol OM Feltback Membrane Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane membrane adhesive.
Sarnacol OM Board Adhesive	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
OlyBond 500	5 gallons	Proprietary	Two-component foamable polyurethane insulation adhesive.
Sarnacol 2170 VC	Various	Proprietary	Solvent-based, VOC compliant adhesive.
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnavap-10	20' x 100'	Proprietary	Polyethylene air/vapor barrier.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing

#### **APPROVED INSULATIONS:**

#### TABLE 2

<b>Product</b>	Product <u>Description</u>	Manufacturer (With Current NOA)
Sarnatherm	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm 25 PSI	Polyisocyanurate insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm (a)	Isocyanurate Insulation with fiber reinforced felt paper facer	Sika Sarnafil, A Division of Sika Corp.
EPS	Type IX Expanded polystyrene with a minimum density of 1.8 pcf	Generic
XPS	Type IV Extruded polystyrene with a minimum density of 1.6 pcf	Generic
Type X Gypsum	Gypsum Wallboard	Generic
DensDeck	Silicon treated gypsum with fiberglass mat facer	Georgia Pacific Gypsum LLC
DensDeck Prime	Silicon treated gypsum with an enhanced fiberglass mat facer	Georgia Pacific Gypsum LLC
H-Shield	Isocyanurate Insulation with fiber reinforced felt paper facer	Hunter Panels, LLC
H-Shield HD	High density polyisocyanurate cover board with a coated glass facer	Hunter Panels, LLC



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### **APPROVED INSULATIONS:**

### TABLE 2

<u>Product</u>	Product  Description	Manufacturer (With Current NOA)
ENRGY 3	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
ENRGY 3 25 PSI	Isocyanurate Insulation with fiber reinforced felt paper facer	Johns Manville Corp.
ACFoam-II	Isocyanurate Insulation with fiber reinforced felt paper facer	Atlas Roofing Corp.
ACFoam-III	Isocyanurate Insulation with coated glass facer	Atlas Roofing Corp.
ACFoam-IV	Isocyanurate Insulation with heavy weight coated glass facer	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation with foil facer	Atlas Roofing Corp.
ISO 95+ GL	Isocyanurate Insulation with fiber reinforced felt paper facer	Firestone Building Products Company, LLC
SECUROCK Gypsum-Fiber Roof Board	Gypsum-fiber cover board	United States Gypsum Corp.
SECUROCK Glass-Mat Roof Board	Gypsum cover board with a glass mat facer	United States Gypsum Corp.
Invinsa Roof Board	High density polyisocyanurate cover board with a coated glass facer	Johns Manville Corp.

# **APPROVED FASTENERS:**

#### TABLE 3

Fastener Number	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	<b>Dimensions</b>	<u>Manufacturer</u> (With Current NOA)
1.	Dekfast 12, 14 & 15 HS	Insulation fastener for wood, steel and concrete decks		SFS Intec, Inc.
2.	Dekfast Galvalume Steel Hex	Galvalume hex stress plate.	2 7/8" x 3 1/4"	SFS Intec, Inc.
3.	Dekfast Dekflat Round Plastic Lock Plate	Polypropylene locking plate.	3" x 3 1/4"	SFS Intec, Inc.
4.	#12 Standard Roofgrip, #14 Roofgrip & #15 Roofgrip	Insulation fastener for wood, steel and concrete.		OMG, Inc.
5.	AccuTrac Hextra	Insulation fastener for wood, steel and concrete		OMG, Inc.
6.	ASAP Hex Head Pre- Assembled System	Pre-assembled Insulation fastener and plate		OMG, Inc.



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# **APPROVED FASTENERS:**

# TABLE 3

<u>Fastener</u> <u>Number</u>	<u>Product</u> <u>Name</u>	Product Description	<u>Dimensions</u>	<u>Manufacturer</u> (With Current NOA)
7.	OMG 3" Galvalume Steel Plate	Galvalume stress plate.	3" round	OMG, Inc.
8.	AccuTrac Plate	Galvalume stress plate.	3" square	OMG, Inc.
9.	OMG Plastic Plate	Polypropylene round plate	3" round	OMG, Inc.
10.	ASAP RoofGrip Pre- Assembled System	Pre-assembled Insulation fastener and plate	Various	OMG, Inc.
11.	OMG G-2	3.5" round galvalume AZ55 steel plate	3.5" round	OMG, Inc.
12.	3 in. Round Metal Plate	3" round galvalume AZ50 steel plate	3" round	OMG, Inc.
13.	OMG Super XHD	Insulation and membrane fastener	Various	OMG, Inc.
14.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc.
15.	CD-10	Carbon steel fastener for concrete decks	Various	OMG, Inc.
16.	Sarnafastener	Insulation fastener for various decks	Various	Sika Sarnafil, A Division of Sika Corp.
17.	Sarnaplate	3" square galvalume AZ50 steel plate	3" square	Sika Sarnafil, A Division of Sika Corp.
18.	Dekfast System ES #12 Plastic	Pre-assembled Insulation fastener and plate	Various	SFS Intec, Inc.
19.	Dekfast Isofast IF/IG-C-82X40	Galvalume steel plate	1.5" x 3.2"	SFS Intec, Inc.
20.	Sarnarail Polymer Batten Strip	Polymer batten bar	0.75" x 250'	Sika Sarnafil, A Division of Sika Corp.
21.	Sarnafastener-XP	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
22.	Sarnafil MAXLoad, Sarnafastener MAXLoad	Membrane and insulation fastener.	Various	Sika Sarnafil, A Division of Sika Corp.
23.	Sarnadisc XPN	Insulation and membrane fastener	1.5" x 3.75"	Sika Sarnafil, A Division of Sika Corp.
24.	RhinoBond Insulation Plate	Membrane fastening plate	Various	OMG, Inc.
25.	OMG Purlin	Membrane and insulation fastener	Various	OMG, Inc.
26.	Sarnabar	Galvanized or stainless steel membrane fastening bar.	Various	Sika Sarnafil, A Division of Sika Corp.
27.	Sarnadisc MAXLoad Plate	AZ50 galvalume coated steel plate	3.5" Round	Sika Sarnafil, A Division of Sika Corp.



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# **APPROVED FASTENERS:**

### TABLE 3

<u>Fastener</u> <u>Number</u>	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	<b>Dimensions</b>	<u>Manufacturer</u> (With Current NOA)
28.	3 in. Ribbed Galvalume Plate	Round Galvalume plated steel stress plate	3" Round	OMG, Inc.
29.	#15 Roofgrip Large Head	Carbon Steel Fastener	Various	OMG, Inc.
30.	Flat Bottom Metal Plate	Insulation fastening plate.	3" Round	OMG, Inc.
31.	Sikaplan Fastener #14	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
32.	Sikaplan Board Plate	Round galvalume plated steel stress plate	3" Round	Sika Saranfil, A Division of Sika Corp.
33.	Sarnadisc RhinoBond	Black primer coated plate for use with PVC membranes	3" Round	Sika Sarnafil, A Division of Sika Corp.
34.	Sikaplan RhinoBond Disc	Black primer coated plate for use with PVC membranes	3" Round	Sika Sarnafil, A Division of Sika Corp.



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# **EVIDENCE SUBMITTED:**

EVIDENCE SUDMITTED.			
<b>Test Agency</b>	<b>Test Identifier</b>	<b>Description</b>	<b>Date</b>
Celotex Technical Center	MTS Job No. 258215	TAS 114	09/09/97
Factory Mutual Research	0X3A3.AM	FM 4470	01/31/94
Corporation	0P6A6.AM	FM 4470	03/03/94
•	2X2A5.AM	FM 4470	01/31/94
	0B9A0.AM	FM 4470	10/22/96
	4B3A2.AM	FM 4470	06/19/97
	1B7A5.AM	FM 4470	02/23/98
	3001580	FM 4470	11/16/98
	3003337	FM 4470	06/11/99
	3012964	FM 4470	06/11/02
	3015643	FM 4470	12/06/02
	3016201	FM 4470	01/28/03
	3006785	FM 4470	05/06/04
	3017292	FM 4470	09/03/04
	3024229	FM 4470	11/16/05
	3030053	FM 4470	09/12/07
	3028309	FM 4470	03/30/07
	3029404	FM 4470	09/09/08
	3014751	FM 4470	08/27/03
	3024311	FM 4470	11/01/06
	3014692	FM 4470	08/05/03
	3012321	FM 4470	07/29/02
	3018579	FM 4450	10/09/03
	3001396	FM 4470	05/28/99
	3008869	FM 4470	03/19/01
	3041256	FM 4470	07/12/11
	3053265	FM 4470	10/30/14
	3039809	FM 4470	07/06/11
	3043459	FM 4470	05/11/12
	3036355	FM 4470	11/10/09
	3035670	FM 4470	05/13/09
Underwriters Laboratories, Inc.	R8992	UL 790	05/15/13
Trinity   ERD	4740.04.98-1	FM 4470	04/09/98
	S44790.06.13	<b>ASTM D4434</b>	06/05/13
	S42480.08.12	Physical Properties	08/20/12
	S44790.08.13	ASTM D4434	08/26/13
	S44790.07.14-R2	<b>ASTM D4434</b>	06/01/15
	S45990.06.14	ASTM D4434	06/02/14



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# **DECK STRESS ANALYSIS CALCULATIONS/REPORTS**

<b>Engineer/Agency</b>	<u> Identifier</u>	<b>Assemblies</b>	<u>Date</u>
Robert Nieminen, P.E.	Signed/Sealed Calculations	D(13)	04/29/16
FM Approval Deck Limitation	N/A	C(3) through C(14), D(1) through D(12)	06/22/16



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#### **APPROVED ASSEMBLIES**

Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

**Deck Description:** Concrete

**System Type A(1):** One or more layers of insulation fully adhered with approved asphalt, membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck

**(Optional):** or base insulation layer

**Fire Barrier** Minimum 1/4" Type X Gypsum or DensDeck

(Optional):

One or more layers of any of the following insulations:

<u>Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI (bottom layer only), ACFoam-III, ACFoam-IIII, ACFoam-IIIIII, ACFoam

Supreme, H-Shield any of the above tapered

Minimum 1.3" thick N/A N/A

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-III, ACFoam-III, ENRGY 3, ISO 95+ GL, ENRGY

3 25 PSI, H-Shield

Minimum 1.4" thick or tapered N/A N/A

**DensDeck Prime** 

Minimum <sup>1</sup>/<sub>4</sub>" thick N/A N/A

Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Membrane:** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive

roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal./sq. to the substrate allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal./sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighed roller. Minimum 3" wide side lap

is sealed with a 1.5" wide heat weld.

Or



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 9 of 68 (With ISO) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With DensDeck Prime) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, H-Shield, Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design Pressure:** 

-45 psf. (See General Limitation #9)



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**Deck Description:** Concrete

System Type A(2): One or more layers of insulation fully adhered with approved asphalt, membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** An FM approved vapor barrier approved for use with hot asphalt may be applied to the deck

**(Optional):** or base insulation layer

Fire Barrier Minimum 1/4" Type X Gypsum or DensDeck

(Optional):

One or more layers of any of the following insulations:

<u>Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI (bottom layer only), ACFoam-III, ACFoam-IIII

Supreme, H-Shield any of the above tapered

Minimum 1.3" thick N/A N/A

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-III, ENRGY 3, ISO 95+ GL, ENRGY

3 25 PSI, H-Shield

Minimum 1.4" thick or tapered N/A N/A

**DensDeck Prime** 

Minimum ¼" thick N/A N/A

Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

**Membrane:** (With ISO) Sikaplan Adhered with Sarnacol 2121 adhesive or Sikaplan Water Based

Membrane Adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at a rate of 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 11 of 68 (*With DensDeck Prime*) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

**Maximum Design** 

**Pressure:** -45 psf. (See General Limitation #9)



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**Deck Description:** Concrete

**System Type A(3):** One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier

FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or

(Optional):

base insulation layer.

Fire Barrier (Optional):

Minimum 1/4" Type X Gypsum or DensDeck.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-III, ACFoam-III, ISO 95+ GL, ENRGY 3

Maximum 1" thick N/A N/A

**DensDeck Prime** 

Minimum 5/8" thick N/A N/A

Note: Insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate

Membrane: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121

adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 13 of 68 (With DensDeck Prime) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or

(With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design Pressures:** 

-45 psf. (See General Limitation #9)



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**Deck Description:** Concrete

**System Type A(4):** One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or

**(Optional):** base insulation layer.

**Fire Barrier** Minimum 1/4" Type X Gypsum or DensDeck.

(Optional):

One or more layers of any of the following insulations:

Base Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft<sup>2</sup></u>

(Table 3)

Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ISO 95+ GL, ENRGY 3

Maximum 1" thick N/A N/A

**DensDeck Prime** 

Minimum 5/8" thick N/A N/A

Note: Insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate

**Membrane:** (With ISO) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied

at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5"

wide heat weld.

Or

(With DensDeck Prime) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.5" wide heat weld.

**Maximum Design** 

**Pressures:** -45 psf. (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(5): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Approved EPS (Not used with Sarnacol 2170 or Sarna Minimum 2" thick	col 2170 VC) N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in  $\sqrt[3]{4}$ " – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane:

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Or

Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation or with Sarnacol 2170 VC adhesive roller applied at 0.75-2gal/sq to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Or



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 16 of 68 Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

# Maximum Design Pressure:

- -112.5 psf; Felt membranes with Sarnacol 2121 adhesive (See General Limitation #9)
- -120 psf; with all other applications (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(6): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	<u>Fastener</u> Density/ft <sup>2</sup>
Approved EPS (Not used with Sarnacol 2170 or Sarnacol 2170 Minimum 2" thick	) VC) N/A	N/A
<b>Top Insulation Layer:</b>	Insulation Fasteners	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
DensDeck Prime Minimum 0.25" thick	N/A	N/A
Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in  $\frac{3}{4}$ " – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at

0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

**Maximum Design** 

**Pressure:** -120 psf. (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(7): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Any UL or FM approved asphaltic vapor barrier may be installed over the deck or the base

(**Optional**): layer of insulation

One or more layers of the following insulations:

Base Insulation Layer (Optional):Insulation FastenersFastener(Table 3)Density/ft²Sarnatherm, Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ISO 95+ GL, H-ShieldMinimum 1.5" thickN/AN/A

Top Insulation Layer:

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

**DensDeck Prime** 

Minimum 0.25" thick N/A N/A

Note: All insulation shall be adhered to the deck in  $\frac{3}{4}$ " – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane (Option 1); Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered to the insulation layers as

specified below.

Attachment #1: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC

adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25"

wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive

applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

\*Maximum Design Pressure: -150.0 psf; with asphaltic vapor Barrier (See General)

Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 19 of 68 **Membrane (Option 2):** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Attachment #3: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #4: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -150.0 psf; with asphaltic vapor Barrier (See General

Limitation #9)

Maximum Design Pressures:

See Attachment. (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(8): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener</u> <u>Density/ft²</u>
Approved XPS Minimum 1" thick	N/A	N/A
<b>Top Insulation Layer:</b>	Insulation Fasteners (Table 3)	<u>Fastener</u> Density/ft²
DensDeck Prime Minimum 0.25" thick		N/A

Note: All insulation shall be adhered to the deck in  $\frac{3}{4}$ " – 1" wide beads 12" o.c. of Sarnacol OM Board Adhesive, OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Membrane (Option 1):** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered to the insulation layers as

specified below.

Attachment #1: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive

applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

**Membrane (Option 2):** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered to the insulation layers as

specified below.

Attachment #1: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive

roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 21 of 68 Attachment #2: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback

Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive Attachment #3:

> applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

**Maximum Design Pressures:** 

See Attachment. (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(9): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer:	<b>Insulation Fasteners</b>	<b>Fastener</b>
	(Table 3)	Density/ft <sup>2</sup>

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, ISO 95+ GL, H-Shield Minimum 1.5" thick

N/A

N/A

**DensDeck Prime** 

Minimum 0.25" thick N/A N/A

Top Insulation Layer:

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

**DensDeck Prime** 

Minimum 0.25" thick N/A N/A

Note: All insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Membrane (Option 1):** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered to the insulation layers as

specified below.

Attachment #1: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC

adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25"

wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive

applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -150.0 psf. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 23 of 68 **Membrane (Option 2);** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered to the insulation layers as

specified below.

**Attachment #1:** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive

rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

**Attachment #2:** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback

Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

**Attachment #3:** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC

adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #4: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive

applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -150.0 psf. (See General Limitation #9)

**Maximum Design** 

**Pressures:** See Attachment. (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(10): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Any UL or FM approved asphaltic vapor barrier may be installed over the deck or the

**(Optional):** base layer of insulation

One or more layers of the following insulations:

Insulation Layer:	<b>Insulation Fasteners</b>	<b>Fastener</b>		
	<u>(Table 3)</u>	Density/ft <sup>2</sup>		
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield				
Minimum 1.5" thick	N/A	N/A		
D. D. I.D.				
DensDeck Prime				
Minimum 0.25" thick	N/A	N/A		

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Sarnacol 2163, Sarnacol AD Board Adhesive, Sarnacol AD Feltback Membrane Adhesive, Millennium One Step Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Membrane (Option 1):** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered to the insulation layers as

specified below.

**Attachment #1:** (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410,

Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld. *Maximum Design Pressure: -97.5 psf. (See General Limitation #9)* 

Attachment #2: (With DensDeck Prime) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered

with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 25 of 68 Attachment #3: (*With DensDeck Prime*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -157.5 psf; with asphaltic vapor barrier (See General Limitation #9)

**Attachment #4:** (*With ISO*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive applied at 0.75-2gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat

Maximum Design Pressure -232.5 psf; without vapor barrier (See General Limitation #9)

**Membrane (Option 2):** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld. Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

\*\*Maximum Design Pressure: -112.5 psf. (See General Limitation #9)\*\*

Attachment #3: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 26 of 68 Attachment #4: (With DensDeck Prime) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered

with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

(With DensDeck Prime) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered Attachment #5:

> with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat

weld.

Maximum Design Pressure: -157.5 psf; with asphaltic vapor barrier (See General

Limitation #9)

**Maximum Design Pressures:** 

See Attachment. (See General Limitation #9)



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(11): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Any UL or FM approved asphaltic vapor barrier may be installed over the deck or the

**(Optional):** base layer of insulation

One or more layers of the following insulations:

 Insulation Layer:
 Insulation Fasteners
 Fastener

 (Table 3)
 Density/ft²

 Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ENRGY 3, H-Shield Minimum 1.5" thick
 N/A

 N/A
 N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Sarnacol 2163, Sarnacol AD Board Adhesive, Sarnacol AD Feltback Membrane Adhesive, Millennium One Step Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Membrane:** (With ISO) Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller

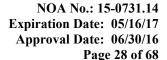
applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is

sealed with a 1.5" wide heat weld.

**Maximum Design** 

**Pressures:** 

-232.5 psf. (See General Limitation #9)





**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(12): One or more layers of insulation adhered with approved <u>adhesive</u>, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional):

Any UL or FM approved vapor barrier may be installed over the deck.

One or more layers of any of the following insulations:

Insulation Layer:	<b>Insulation Fasteners</b>	<u>Fastener</u>		
	<u>(Table 3)</u>	Density/ft <sup>2</sup>		
Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ISO 95+GL, H-Shield				
Minimum 1.5" thick	N/A	N/A		
Dang Dank Duine				
DensDeck Prime				
Minimum 0.5" thick	N/A	N/A		

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of ICP Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Membrane (Option 1):** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered to the insulation layers as

specified below.

Attachment #1: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410,

Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld. Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2: (With DensDeck Prime) Sarnafil G410, Textured G410 Felt, S327 or S327 (10 ft) adhered

with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 29 of 68 Attachment #3: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

\*\*Maximum Design Pressure: -232.5 psf; with asphaltic vapor barrier (See General Limitation #9)

**Membrane (Option 2);** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered to the insulation layers as specified below.

Attachment #1: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld. \*Maximum Design Pressure: -97.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld. \*\*Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #3: (With ACFoam-II, ACFoam-III, Sarnatherm (a) and Sarnatherm-25 PSI or DensDeck Prime) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

**Attachment #4:** (*With DensDeck Prime*) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #5: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -232.5 psf; with asphaltic vapor barrier (See General Limitation #9)

See Attachment. (See General Limitation #9)

Maximum Design Pressures:



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**Deck Description:** Min. 2500 psi structural concrete or concrete plank

System Type A(13): One or more layers of insulation adhered with approved adhesive, membrane fully

adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional):

Any UL or FM approved vapor barrier may be installed over the deck.

One or more layers of any of the following insulations:

 Insulation Layer:
 Insulation Fasteners (Table 3)
 Fastener Density/ft²

 Dens Deck Prime
 Table 3)
 Density/ft²

Minimum 0.5" thick N/A N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of ICP Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

**Membrane (Option 1):** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered to the insulation layers as

specified below.

Attachment #1: Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC

adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25"

wide heat weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #2: (With Vapor Barrier) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with

Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide

heat weld.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 31 of 68 **Membrane (Option 2):** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered to the insulation layers as

specified below.

Attachment #1: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2121 adhesive

roller applied at a rate of 0.75 gal/sq. to the insulation or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Attachment #2: Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol AD Feltback

Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

minimum 1.25" wide heat weld.

Maximum Design Pressure: -120.0 psf. (See General Limitation #9)

**Attachment #3:** Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC

adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat

weld.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Attachment #4: (With Vapor Barrier) Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with

Sarnacol 2170 adhesive applied at 0.75-2 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at 0.75gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.5" wide heat

weld.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)

**Maximum Design** 

**Pressures:** See Attachment. (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 32 of 68 Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Min. 33ksi, 22ga. steel

**System Type C(1):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:

Insulation Fasteners
(Table 3)

Fastener Density/ft²

**ACFoam-III** 

Minimum 1.5" thick 16 with 17 1:2 ft<sup>2</sup>

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive

applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane or with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide

side lap is sealed with a minimum 1.25" wide heat weld.

Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to the substrate in two coats with a total application rate of 2.0 gal/sq or with Sarnacol 2121 adhesive roller applied at a rate of 0.75 gal/sq. or with Sarnacol AD Feltback Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum 1.25" wide heat weld.

**Maximum Design** 

**Pressure:** -45 psf (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 33 of 68 Membrane Type: Single Ply, PVC

Deck Type 7I: Recover, Insulated

Deck Description: Min. 33ksi, 22ga. steel

**System Type C(2):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:

Insulation Fasteners
(Table 3)

Fastener Density/ft²

**ACFoam-III** 

Minimum 1.5" thick 16 with 17 1:2 ft<sup>2</sup>

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at a rate of

0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a minimum

1.25" wide heat weld.

**Maximum Design** 

**Pressure:** -45 psf (See General Limitation #9)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 34 of 68 **Membrane Type:** Single Ply, PVC

**Deck Type 7I**: Recover, Insulated

**Deck Description:** Min. 33ksi, 16 – 22ga. steel

System Type C(3): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft<sup>2</sup></u>

(Table 3)

Sarnatherm, H-Shield

Maximum 1.0" thick 21 & 24 See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate

bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is

sealed with a minimum <sup>3</sup>/<sub>4</sub>" wide heat weld.

Maximum Design

Maximum Pressure Fastener Spacing Fastener Row Spacing

Pressures: -45.0 psf 2 ft.

(See General Limitation #9)



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3 ft.

**Membrane Type:** Single Ply, PVC

**Deck Type 7I**: Recover, Insulated

**Deck Description:** Min. 33ksi, 16 – 22ga. steel

System Type C(4): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft<sup>2</sup></u>

(Table 3)

Sarnatherm, H-Shield

Maximum 1.0" thick 21 & 24 See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc.

Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design

Maximum Pressure

-45.0 psf

Fastener Spacing

2 ft.

Fastener Row Spacing

3 ft.

Pressures: (See General Limitation #9)



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**Deck Description:** 16 – 22ga., Type B Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6

ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1

fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type C(5): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<b>Base Insulation Layer:</b>	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
	<u>(Table 3)</u>	
Sarnatherm, H-Shield		
Maximum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any approved cover board listed in Table 2 Minimum 0.25" thick	13 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with minimum <sup>3</sup>/<sub>4</sub>" wide heat weld.

Maximum Design	<b>Maximum Pressure</b>	<b>Fastener Spacing</b>	Fastener Row Spacing
Pressures:	-45 psf	2 ft.	3 ft.
i i essui es.	(See General Limitation #7)		
	-60 psf	2 ft.	2 ft.
	(See General Limitation #7)		



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**Deck Description:** 16 – 22ga., Type B Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6

ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1

fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type C(6): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<b>Base Insulation Layer:</b>	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
<u> </u>	<u>(Table 3)</u>	
Sarnatherm, H-Shield		
Maximum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any approved cover board listed in Table 2 Minimum 0.25" thick	13 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with minimum <sup>3</sup>/<sub>4</sub>" wide heat weld.

Maximum Design	<b>Maximum Pressure</b>	<b>Fastener Spacing</b>	<b>Fastener Row Spacing</b>
Pressures:	-45 psf	2 ft.	3 ft.
i i cssui cs.	(See General Limitation #7)		
	-60 psf	2 ft.	2 ft.
	(See General Limitation #7)		



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**Deck Description:** 16 – 22ga., Type B, Grade 80 steel deck fastened 0.25 in thick structural supports spaced 6 ft.

o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners

spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type C(7):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<b>Base Insulation Layer:</b>	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
	<u>(Table 3)</u>	
Sarnatherm, H-Shield		
Maximum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Top Insulation Layer (Optional):</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any approved cover board listed in Table 2 Minimum 0.25" thick	21 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with Rhino Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with

minimum 3/4" wide heat weld.

	<b>Maximum Pressure</b>	<b>Fastener Spacing</b>	<b>Fastener Row Spacing</b>
Maximum Design	-45 psf (See General Limitation #7)	2 ft.	3 ft.
Pressures:	-60 psf) (See General Limitation #7	2 ft.	2 ft.



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**Deck Description:** 16 – 22ga., Type B, Grade 80 steel deck fastened 0.25 in thick structural supports spaced 6 ft.

o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners

spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type C(8):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<b>Base Insulation Layer:</b>	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
	<u>(Table 3)</u>	
Sarnatherm, H-Shield		
Maximum 1" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<b>Top Insulation Layer (Optional):</b>	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any approved cover board listed in Table 2 Minimum 0.25" thick	21 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc,
Sarnadisc RhinoBond with Rhino Plate bonding tool at 6 seconds per plate so the tool reaches

400°F. Side lap is sealed with minimum <sup>3</sup>/<sub>4</sub>" wide heat weld.

	<b>Maximum Pressure</b>	<b>Fastener Spacing</b>	<b>Fastener Row Spacing</b>
Maximum Design	-45 psf (See General Limitation #7)	2 ft.	3 ft.
Pressures:	-60 psf) (See General Limitation #7	2 ft.	2 ft.



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 40 of 68 **Membrane Type:** Single Ply, PVC

**Deck Type 7I**: Recover, Insulated

**Deck Description:** 18-22 ga., Grade 33 steel deck fastened to the 0.25" thick structural supports spaced

maximum 6' o.c. with one #12 ICH Traxx 5 fastener spaced maximum 6 in. o.c. and with

side laps secured with one #10 ICH Traxx 1 fastener spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type C(9):** All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft<sup>2</sup></u>

(Table 3)

Sarnatherm, H-Shield

Maximum 1.0" thick 21 with 24 See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate

bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is

sealed with a minimum 3/4" wide heat weld.

(See General Limitation #7)

Maximum Design

Maximum Pressure

Fastener Spacing

Fastener Row Spacing

Pressures: -60.0 psf 2 ft. 2 ft.



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**Deck Description:** 18-22 ga., Grade 33 steel deck fastened to the 0.25" thick structural supports spaced

maximum 6' o.c. with one #12 ICH Traxx 5 fastener spaced maximum 6 in. o.c. and with

side laps secured with one #10 ICH Traxx 1 fastener spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

**Analysis Table.** 

**System Type C(10):** All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>
<u>Insulation Fasteners</u>
(Table 3)

<u>Fastener Density/ft²</u>

Sarnatherm, H-Shield

Maximum 1.0" thick 21 with 24 See Design Pressure

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc,

Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool reaches 400°F. Minimum 3" wide side lap is sealed with a minimum 3/4" wide heat weld.

Maximum Design

Maximum Pressure Fastener Spacing Fastener Row Spacing

Pressures: -60.0 psf 2 ft. 2 ft.

(See General Limitation #7)



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**Deck Description:** Min. 18-20ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports

spaced 6 ft. o.c. with two Traxx/5 fasteners, with ¾ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24

in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type C(11):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:

| Insulation Fasteners | Fastener Density/ft² |
| (Table 3)

Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV
Minimum 2" thick 17 with 21

1:1 ft<sup>2</sup>

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive

applied to the substrate at 0.75 gal/sq. and to the roof cover at 0.5 gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

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Or

Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to only the substrate in two coats with a total application rate of 2.0 gal/sq. or with Sarnacol 2121 adhesive roller applied at 0.75 gal/sq. to the insulation or with Sarnacol AD Feltback Membrane Adhesive or OM Feltback Membrane adhesive applied in 0.5" wide ribbons spaced 12" o.c. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide

heat weld.

**Maximum Design** 

**Pressure:** -97.5 psf (See General Limitation #7)



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**Deck Description:** Min. 18-22ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports

> spaced 6 ft. o.c. with two Traxx/5 fasteners, with \(^3\)/4 in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24

in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type C(12): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer: Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

Sarnatherm (a), Sarnatherm 25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV Minimum 2" thick 17 with 21

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application

**Membrane:** Sikaplan Adhered with Sikaplan Water Based Membrane Adhesive roller applied at 0.75

gal/sq. to the insulation. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide

heat weld.

Standard RAS 117 for insulation attachment.

**Maximum Design** 

-97.5 psf (See General Limitation #7) **Pressure:** 



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1:1 ft<sup>2</sup>

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**Deck Description:** 18 ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft.

o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx 1

fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

**Analysis Table.** 

**System Type C(13):** All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<b>Base Insulation Layer:</b>	<b>Insulation Fasteners</b>	Fastener Density/ft <sup>2</sup>
	<u>(Table 3)</u>	
Sarnatherm, H-Shield		
Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any approved cover board listed in Table 2 Minimum 0.25" thick	21 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil S327 or S327 (10 ft) bonded to RhinoBond Insulation Plates with RhinoBond Plate

bonding tool at 6 seconds per plate so the tool reaches 400°F. Side lap is sealed with

minimum 3/4" wide heat weld.

	<b>Maximum Pressure</b>	Fastener Spacing	<b>Fastener Row Spacing</b>
Maximum Design Pressures:	-45 psf (See General Limitation #7)	12 in.	6 ft.
	-52.5 psf (See General Limitation #7)	12 in.	5 ft.
	-90 psf (See General Limitation #7)	6 in.	6 ft.
	-105 psf (See General Limitation #7)	6 in.	5 ft.



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**Deck Description:** 18 ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6 ft.

o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with two Traxx 1

fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type C(14): All layers of insulation simultaneously fastened; membrane adhered using RhinoBond plate

bonding tool.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners	Fastener Density/ft <sup>2</sup>
	<u>(Table 3)</u>	
Sarnatherm, H-Shield		
Minimum 1.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft <sup>2</sup>
Any approved cover board listed in Table 2 Minimum 0.25" thick	21 with 24	See Design Pressure

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sikaplan Fastened or Sikaplan Fastened Feltback bonded to Sikaplan RhinoBond Disc, Sarnadisc RhinoBond with RhinoBond Plate bonding tool at 6 seconds per plate so the tool

reaches 400°F. Side lap is sealed with minimum 3/4" wide heat weld.

	Maximum Pressure	Fastener Spacing	<b>Fastener Row Spacing</b>
Maximum Design Pressures:	-45 psf (See General Limitation #7)	12 in.	6 ft.
	-52.5 psf (See General Limitation #7)	12 in.	5 ft.
	-90 psf (See General Limitation #7)	6 in.	6 ft.
	-105 psf (See General Limitation #7)	6 in.	5 ft.



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**Deck Description:** 18-22 ga., Type B, Grade 33 steel deck fastened to 0.25 in. thick structural supports spaced 6

ft. o.c. with two Traxx 5 fasteners and ¾" thick washers spaced 6 in. o.c. and with side laps fastened with one Traxx 1 fasteners spaced 12 in. o.c. Permiter securement spaced 12 in. o.c. along the 24 ft length and 6 in. o.c. along the 12 ft length using Traxx/5 fasteners and

3/4" thick washers.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type C(15):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u> <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

<u>(Table 3)</u>

Sarnatherm (a), Sarnatherm, Sarnatherm-25 PSI, ACFoam-II, ACFoam-III, ACFoam-IV, H-Shield Minimum: 1.5" thick N/A N/A

Top Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

<u>(Table 3)</u>

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board, Invinsa Roof Board, H-Shield HD

Minimum 0.5" thick 16 with 17 1:1 ft<sup>2</sup>

Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** Sarnafil S327 Felt, G410 Felt, Textured G410 Felt adhered with Sarnacol AD Feltback

Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive applied in four rows of 0.5" wide ribbons spaced 12" o.c. or adhered with Sarnacol 2170 VC adhesive applied to the substrate in two costs with a total application rate of 2.0 cells. The most expension

substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Or

(*Not with SECUROCK coverboards*) Sarnafil G410, Textured G410, S327 or S327 (10 ft) adhered with Sarnacol 2170 VC adhesive applied at 0.75 gal/sq. to the substrate and 0.5 gal/sq. to the back of the membrane. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a

1.25" wide heat weld.

**Maximum Design** 

-82.5 psf. (See General Limitation #7)

**Pressure:** 



**Deck Description:** Min. 18-22ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports

spaced 6 ft. o.c. with two Traxx/5 fasteners, with ¾ in. washers, at each rib spaced 6 in. o.c. in rows above each support 6 ft. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24

in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type C(16):** All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier (Optional):

Minimum 1/4" DensDeck, DensDeck Prime and SECUROCK Gypsum-Fiber Roof Board

One or more layers of any of the following insulations:

Base Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

(Table 3)

Sarnatherm, H-Shield

Minimum 1.5" thick N/A N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer: <u>Insulation Fasteners</u> <u>Fastener Density/ft²</u>

<u>(Table 3)</u>

DensDeck Prime, SECUROCK Glass-Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof Board

Minimum 0.25" thick 17 with 21 1:1 ft<sup>2</sup>

Note: Top insulation layer shall also be adhered with Sarnacol OM Board Adhesive or OlyBond 500 applied in <sup>3</sup>/<sub>4</sub>-inch ribbons spaced 12-inch o.c. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Membrane:** (*Not with SECUROCK coverboards*) Sarnafil G410, Textured G410, S327 or S327 (10 ft)

adhered with Sarnacol 2170 VC adhesive applied to the substrate at 0.75 gal/sq and to the roof cover at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Or



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 48 of 68 Sarnafil G410 Felt, Textured G410 Felt or S327 Felt adhered with Sarnacol 2170 VC adhesive applied to only the substrate in two coats with a total application rate of 2.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller. Minimum 3" wide side lap is sealed with a 1.25" wide heat weld.

Maximum Design Pressure:

-127.5 psf (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18-22 ga., A1008 SS Grade 80 or A653

Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced

24 in. o.c. \**Fastening* #1

Or

Min. 18-22 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

\*Fastening #2

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

**Analysis Table.** 

**System Type D(1):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional):

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u>	<u> Fastener</u>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
Any approved insulation listed in Table 2		
Maximum 1.0" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 50 of 68 **Membrane:** Sarnafil S327 or S327 (10 ft) attached to deck as specified below with Sarnarail Polymer

Batten Strips.

**Fastening #1:** (Not with S327 (10 ft)) Sarnafasteners-XP fasteners spaced 12" o.c. through batten strip

spaced maximum 73.25" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 18" and securing with two Sarnafastener XP screws spaced 12" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat

weld on the inside edge.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

**Fastening #2:** (With S327 (10 ft)) Sarnafasteners-XP fasteners spaced 6" o.c. through batten strip spaced

maximum 144" o.c. within the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP fastenersspaced 6" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on

the inside edge.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

**Maximum Design** 

**Pressures:** See Fastening Pattern. (See General Limitation #7)



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**Deck Description:** Min. 18-22 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports,

spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with

Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type D(2):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(Optional):

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:	<u>Insulation Fasteners</u>	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
Any approved insulation listed in Table 2		
Maximum 1.0" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below with

Sarnarail Polymer Batten Strips.

**Fastening #1:** Sikaplan Fastener #15 spaced 6" o.c. through batten strip spaced maximum 144" o.c. within

the 5.5" wide side lap. Batten strip splice joints are made by overlapping the batten 12" and securing with two Sarnafastener XP or Sikaplan Fastener #15 spaced 6" o.c. Laps are sealed with at 1.5" wide heat weld on the outside edge and 1.0" wide heat weld on the inside

edge.

**Maximum Design** 

**Pressures:** -52.5 psf. (See General Limitation #7)



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**Deck Description:** Min. 18-22 ga., A1008 SS Grade 80 or A653 Grade 80 steel deck is fastened to 0.25 in. thick

structural supports, spaced 6' o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps

fastened with Traxx 1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type D(3): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

Fire Barrier Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (Optional): approved insulation fasteners at not less than 2 fasteners for a board with no dimension

greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

**Base Insulation Layer:**Insulation Fasteners
(Table 3)
Fastener
Density/ft²

Any approved insulation listed in Table 2:

Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 attached to deck as specified below with Sarnarail Polymer Batten Strips.

**Fastening #1:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners spaced 18" o.c. through batten strip

spaced maximum 73.25" o.c. within the 5.5" wide side lap. Batten strip splice joints are

made by overlapping the batten 24" and securing with two Sarnafil MAXLoad,

Sarnafastener MAXLoad screws spaced 18" o.c. Laps are sealed with at 1.5" wide heat

weld on the outside edge and 1.0" wide heat weld on the inside edge.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

**Maximum Design** 

**Pressures:** See Fastening Pattern. (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18 ga., Type B, Grade 80 steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced

6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type D(4): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

Fire Barrier Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (Optional): approved insulation fasteners at not less than 2 fasteners for a board with no dimension

greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation FastenersFastener(Table 3)Density/ft²Any approved insulation listed in Table 2:N/AMaximum 1.0" thickN/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

**Fastening #1:** Sarnafasteners-XP fasteners with Sarnadisc-XPN plates spaced 6" o.c. within 5.5" wide laps

spaced 114.5" o.c. Laps are sealed with a 1.75" wide heat weld on outside edge of lap.

**Maximum Design** 

**Pressures:** 

-60.0 psf. (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18 ga., Type B, Grade 80 steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced

6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type D(5):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

greater than 4° and not less than four fasteners for any board with any greater dimensi

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation Fasteners<br/>(Table 3)Fastener<br/>Density/ft²Any approved insulation listed in Table 2:N/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

**Fastening #1:** Sikaplan Fastener #15 with Sarnadisc-XPN plates spaced 6" o.c. within 5.5" wide laps

spaced 114.5" o.c. Laps are sealed with a 1.75" wide heat weld on outside edge of lap.

**Maximum Design** 

**Pressures:** 

-60.0 psf. (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18-20 ga., Type B, Grade 80 steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft o.c. with Traxx/5 fasteners spaced 6

in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type D(6):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

**Fire Barrier** Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (**Optional**): approved insulation fasteners at not less than 2 fasteners for a board with no dimension

greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation FastenersFastener(Table 3)Density/ft²

Any approved insulation listed in Table 2:

Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

Fastening #1: (Steel or Concrete Deck Only; With S327 (10 ft)) Sarnafasteners-XP fasteners and

Sarnadisc XPN plates spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c.

Laps are sealed with a minimum 0.5" wide outside edge heat weld. Maximum Design Pressure -45.0 psf. (See General Limitation #7)

Fastening #2: (Steel Deck Only; Not with S327 (10 ft)) Sarnafil MAXLoad, Sarnafastener MAXLoad

fasteners and Sarnadisc MAXLoad Plates spaced 6" o.c. within 7" wide side laps spaced maximum 113" o.c. Laps are sealed with a minimum 0.875" wide outside edge heat weld.

Maximum Design Pressure -60.0 psf (See General Limitation #7)

**Maximum Design** 

**Pressures:** 

See Fastening Pattern. (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18-20 ga., Type B, Grade 80 steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft o.c. with Traxx/5 fasteners spaced 6

in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 24 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type D(7):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

**Fire Barrier** Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (**Optional**): approved insulation fasteners at not less than 2 fasteners for a board with no dimension

approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>

<u>Insulation Fasteners</u>
(Table 3)

<u>Fastener</u>
Density/ft²

Any approved insulation listed in Table 2:

Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

**Fastening #1:** Sikaplan Fastener #15 fasteners and Sarnadisc XPN plates spaced 6" o.c. within 5.5" wide

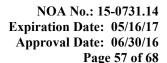
side laps spaced maximum 114.5" o.c. Laps are sealed with a minimum 0.5" wide outside

edge heat weld.

**Maximum Design** 

**Pressures:** 

-45.0. (See General Limitation #7)



MIAMI-DADE COUNTY
APPROVED

**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18-20 ga., Type B, Grade 80 steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced

6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

Membrane attached over preliminary fastened insulation. System Type D(8):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(Optional): insulation layer.

Fire Barrier Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (Optional):

approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

**Base Insulation Layer: Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup> Any approved insulation listed in Table 2:

Maximum 1.0" thick

N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 or S327 (10 ft) attached to deck as specified below.

**Fastening #1:** (Steel Deck Only) Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and 3/4" wide

> Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 14" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum

0.75" wide inside edge heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

(Steel or Concrete Deck Only) Sarnafasteners-XP fasteners or OMG #15 Roofgrip Large **Fastening #2:** 

> Head fasteners and 3/4" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside

edge heat weld and minimum 0.75" wide inside edge heat weld.

Maximum Design Pressure -60.0 psf. (See General Limitation #7)



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(*Steel Deck Only*) Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and <sup>3</sup>/<sub>4</sub>" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside edge heat weld.

Maximum Design Pressure -67.5 psf. (See General Limitation #7)

Maximum Design Pressures:

See Fastening Pattern. (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18-20 ga., Type B, Grade 80 steel deck is

fastened to 0.25 in. thick structural supports, spaced 6 ft. o.c. with Traxx 5 fasteners spaced

6 in. o.c. and with side laps fastened with Traxx 1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type D(9):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

**Fire Barrier** Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (**Optional**): approved insulation fasteners at not less than 2 fasteners for a board with no dimension

greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>

<u>Insulation Fasteners</u>
(Table 3)

<u>Fastener</u>
Density/ft²

Any approved insulation listed in Table 2:

Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as specified below.

**Fastening #1:** Sikaplan Fastener #15 and <sup>3</sup>/<sub>4</sub>" wide Sarnarail Polymer Batten Strip spaced 6" o.c. within

5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide

outside edge heat weld and minimum 0.75" wide inside edge heat weld.

**Maximum Design** 

**Pressures:** -60.0 psf. (See General Limitation #7)



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**Deck Description:** Min.18 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports,

spaced 6' o.c. with Traxx 5 fasteners spaced 6 in. o.c. and with side laps fastened with Traxx

1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

**System Type D(10):** Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Vapor Barrier** Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

**Fire Barrier** Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County (**Optional**): approved insulation fasteners at not less than 2 fasteners for a board with no dimension

approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

<u>Base Insulation Layer:</u>

<u>Insulation Fasteners</u>
(Table 3)

<u>Fastener</u>
Density/ft²

Any approved insulation listed in Table 2:

Maximum 1.0" thick N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Sarnafil S327 (10 ft), Sikaplan Fastened or Sikaplan Fastened Feltback attached to deck as

specified below.

Fastening #1: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and <sup>3</sup>/<sub>4</sub>" wide Sarnarail Polymer

Batten Strip spaced 6" o.c. within 5.5" wide side laps spaced maximum 114.5" o.c. Batten Strip is lapped 8" within lap to provide a minimum 2 screw securement in lap. Laps are sealed with a minimum 1.25" wide outside edge heat weld and minimum 0.75" wide inside

edge heat weld.

**Maximum Design** 

**Pressures:** -75.0 psf (See General Limitation #7)



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**Deck Description:** Min. 2500 psi concrete or concrete plank or min. 18-22 ga., Type B, Grade 80 steel deck

fastened to 0.25 in. thick structural supports, spaced 6' o.c. with Traxx/5 fasteners spaced 6

in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type D(11): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(Optional): in

insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

Base Insulation Layer:Insulation Fasteners<br/>(Table 3)Fastener<br/>Density/ft²Any approved insulation listed in Table 2:N/AN/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 attached to deck as specified below.

**Fastening #1:** Sarnafasteners-XP fasteners and Sarnarail Polymer Batten Strip spaced 12" o.c. within 5.5"

wide side laps spaced maximum 54" o.c. Laps are sealed with a minimum 1" wide outside

heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

**Fastening #2:** Sarnafasteners-XP fasteners and Sarnadisc XPN plates spaced 12" o.c. within 5.5" wide side

laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat

weld.

Maximum Design Pressure -60.0 psf. (See General Limitation #7)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 62 of 68 **Fastening #3:** Sarnafasteners-XP fasteners and Sarnadisc XPN plates spaced 6" o.c. within 5.5" wide side

laps spaced maximum 54" o.c. Laps are sealed with a minimum 1.6" wide outside heat

weld.

Maximum Design Pressure -90.0 psf. (See General Limitation #7)

Maximum Design Pressures:

See Fastening Pattern. (See General Limitation #7)



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**Deck Description:** Min. 18-22 ga., Type B, Grade 80 steel deck fastened to 0.25 in. thick structural supports,

spaced 6' o.c. with Traxx/5 fasteners spaced 6 in. o.c. and with side laps fastened with

Traxx/1 fasteners spaced 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

System Type D(12): Membrane attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier

Sarnavap-10 or a FM approved vapor barrier applied directly to the deck or over the base

(**Optional**): insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

 Base Insulation Layer:
 Insulation Fasteners (Table 3)
 Fastener Density/ft²

 Any approved insulation listed in Table 2:
 N/A
 N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 attached to deck as specified below.

**Fastening #1:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 24" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

**Fastening #2:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 24" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)



NOA No.: 15-0731.14 Expiration Date: 05/16/17 Approval Date: 06/30/16 Page 64 of 68 **Fastening #3:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 12" o.c. within 7" wide side laps spaced maximum 113" o.c. Laps are sealed with a

minimum 1.5" wide outside heat weld.

Maximum Design Pressure -45.0 psf. (See General Limitation #7)

**Fastening #4:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 18" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

**Fastening #5:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 18" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -52.5 psf. (See General Limitation #7)

Fastening #6: Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 12" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -60.0 psf. (See General Limitation #7)

**Fastening #7:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 12" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -67.5 psf. (See General Limitation #7)

**Fastening #8:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnadisc MAXLoad Plates

spaced 6" o.c. within 6.5" wide side laps spaced maximum 53" o.c. Laps are sealed with a

minimum 1.6" wide outside heat weld.

Maximum Design Pressure -105.0 psf. (See General Limitation #7)

**Fastening #9:** Sarnafil MAXLoad, Sarnafastener MAXLoad fasteners and Sarnarail Polymer Batten Strip

spaced 6" o.c. within 5.5" wide side laps spaced maximum 54" o.c. Laps are sealed with a

minimum 1" wide outside heat weld and a minimum 5/8" wide inside heat weld.

Maximum Design Pressure -112.5 psf. (See General Limitation #7)

**Maximum Design** 

**Pressures:** 

See Fastening Pattern. (See General Limitation #7)



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**Deck Description:** Min. 22 ga., Type B, Grade 80 steel deck is fastened to 0.25 in. thick structural supports,

> spaced 6' o.c. with Traxx/5 fasteners at the bottom of each rib spaced 6 in. o.c. and with side laps fastened with Traxx/1 fasteners spaced 18 in. o.c. \* The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 338 lbf when tested with fasteners, listed in this

assembly, installed through to the deck in accordance with TAS 105.

This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress

Analysis Table.

Membrane attached over preliminary fastened insulation. System Type D(13):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier (Optional):

Sarnavap-10 vapor barrier applied directly to the deck or over the base insulation layer.

Fire Barrier (Optional):

Minimum 5/8" Type X Gypsum, 1/4" DensDeck, secured with Miami-Dade County approved insulation fasteners at not less than 2 fasteners for a board with no dimension greater than 4' and not less than four fasteners for any board with any greater dimension

than 4'.

One or more layers of any of the following insulations:

**Insulation Fasteners Base Insulation Layer:** Fastener Density/ft<sup>2</sup> (Table 3)

Sarnatherm (a), Sarnatherm-25 PSI, ACFoam-III, ACFoam-III

Minimum 1.5" thick or tapered N/A N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

**Membrane:** Sarnafil S327 attached to deck as specified below.

Six Sarnabars spaced 36" o.c. maximum, fastened with Sarnafasteners-XP spaced 6" o.c. **Fastening #1:** 

through the field of the membrane and covered with a 7" minimum width cover strip with

minimum 1.5" wide welds on each side.

**Maximum Design** 

**Pressure:** -112.5 psf (See General Limitation #7)



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**Membrane Type:** Single Ply, PVC

Deck Type 7: Recover, Non-Insulated

**Deck Description:** Concrete/Min 22 ga. 33 ksi. Steel

**System Type F(1):** Membrane adhered to sustrate.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Sarnafil S327 Felt, G410 Felt, Textured G410 Felt adhered with Sarnacol AD Feltback Membrane:

> Membrane Adhesive or Sarnacol OM Feltback Membrane Adhesive applied in four rows of 0.5" wide ribbons spaced 12" o.c. and rolled with a weighted roller. Minimum 3" wide side

lap is sealed with a 1.5" wide heat weld.

**Maximum Design** 

Pressure: -120.0 psf. (See General Limitation #9)



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## **RECOVER SYSTEM LIMITATIONS:**

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

## **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf..**
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE



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